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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,082	03/08/2004	Shigetaka Kinme	04970/0200979-US0	8676
7278	7590	10/26/2007	EXAMINER	
DARBY & DARBY P.C.			GARCIA, ERNESTO	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,082	Applicant(s) KINME ET AL.	
	Examiner Ernesto Garcia	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007 and 09 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 9, 2007 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "extends externally from the engagement groove along a longitudinal direction of the shaft joint" recited in claim 1, line 7-8.

Claim Objections

Claim 7 is objected to because of the following informalities:

regarding claim 7, "ins" in line 5 should be --in--. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 10, "the portion of the flexible member extending externally from the engagement groove" in lines 1-2 lacks proper antecedent basis.

Regarding claim 11, the metes and bounds of the claim is unclear. Since claim 1, line 4, sets forth that the shaft body is already engaged with the engagement groove of the shaft joint, how does the flexible member prevent the shaft body from being inserted into the engagement groove simultaneously.

Claim Rejections - 35 USC § 102

Claims 1-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Aota et al., 6,474,898.

Regarding claim 1, Aota et al. disclose, in Figure 3, a coupling structure comprising a shaft body **5**, a shaft joint **1**, and a coupling shaft **17**. The shaft body **5** has a slip-off preventing groove **47** and a positioning recess **12** close to an end portion thereof (note that the recess **12** does not extend from end-to-end, along the longitudinal axis, of the shaft body, but is rather cut short since the shaft is cylindrical; see attachment). The shaft joint **1** has an engagement groove **A1** (see marked-up attachment provided in the last Office action), bores **15,16**, and a flexible member **10**. The shaft body **5** is engaged with the engagement groove **A1**. The flexible member **10** projects in a depth direction **A2** of the engagement groove **A1**, extends externally from the engagement groove **A1** along a longitudinal direction of the shaft joint, and engages the positioning recess **12**. The bores **15,16** face the engaging groove **A1**. The coupling shaft **17** is inserted into the bores **15,16**. An engagement direction of the flexible member **11** is perpendicular to the longitudinal direction.

Regarding claim 2, the flexible member **10** has a deflection regulating portion (the vertical portion) being substantially planar and includes a planar surface facing a side face of the engagement groove **A1**.

Regarding claim 3, a tip (the bent portion) of the flexible member **10** is bent outward in a width direction of the engagement groove **A1**.

Regarding claims 4 and 5, the flexible member **10** is provided more inwardly than another side face of the engagement groove **A1**.

Regarding claim 6, the shaft body **5** includes a top face and a side face **26**. The top face is adjacent the coupling shaft **17**. The positioning recess **12** is disposed in the side face **26** (note that the recess is disposed on both the top face and the side face simultaneously).

Regarding claim 7, Aota et al. disclose, in Figure 3, a coupling structure comprising a shaft body **5**, a shaft joint **1**, and a coupling shaft **17**. The shaft body **5** has a positioning recess **12** close to an end portion thereof (note that the recess **12** does not extend from end-to-end, along the longitudinal axis, of the shaft body, but is rather cut short since the shaft is cylindrical; see attachment). The shaft joint **1** has an engagement groove **A1** (see marked-up attachment provided in the last Office action), bores **15,16**, and a flexible member **10**. The shaft body **5** is engaged with the engagement groove **A1**. The flexible member **10** projects in a depth direction **A2** of the engagement groove **A1**, extends externally from the engagement groove **A1** along a longitudinal direction of the shaft joint, and engages the positioning recess **12**. The

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bores **15,16** face the engaging groove **A1**. The coupling shaft **17** is inserted into the bores **15,16**. An engagement direction of the flexible member **11** is perpendicular to the longitudinal direction. A semi-circular groove **47** is near an end portion of the shaft body **5** containing the coupling shaft **17**.

Regarding claim 9, Aota et al. disclose, in Figure 3, a coupling structure comprising a shaft body **5**, a shaft joint **1**, and a coupling shaft **17**. The shaft body **5** has an engagement portion **15** and a positioning recess **12**. The positioning recess **12** is close to an end portion thereof and adjacent the engagement portion **15**. The shaft joint **1** has an engagement groove **A1** (see marked-up attachment provided in the last Office action), bores **15,16**, and a flexible member **10**. The shaft body **5** is engaged with the engaging groove **A1**. The bores **15,16** face the engaging groove **A1**. The flexible member **10** projects in a depth direction of the engagement groove, extends externally from the engagement groove along a longitudinal direction of the shaft joint **1**, and engages the positioning recess **12**. The coupling shaft **17** is inserted into the bores **15,16**.

Regarding claim 10, a portion of the flexible member **10** extends externally from the engagement groove **A1** along a longitudinal direction of the shaft joint **1** is able to be accessed.

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Regarding claim 11, the flexible member prevents the shaft body from being inserted into the engagement groove along the depth direction.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Aota et al., 6,474,898.

Regarding claim 9, Hancock et al. disclose, in Figures 3, 5 and 6, a coupling structure comprising a shaft body **1**, a shaft joint **3**, and a coupling shaft **4**. The shaft body **1** has an engagement portion and a positioning recess **1A**. The positioning recess **1A** is close to an end portion thereof and adjacent the engagement portion. The shaft joint **3** has an engagement groove (keyhole shaped groove), bores **5**, and a flexible member **9**. The shaft body **1** is engaged with the engaging groove (keyhole groove). The bores **5** face the engaging groove (the keyhole groove). The flexible member **30** projects in a depth direction of the engagement groove, extends externally from the engagement groove along a longitudinal direction of the shaft joint **3**, and engages the positioning recess **1A**. The coupling shaft **4** is inserted into the bores **31,36**.

Response to Arguments

Applicant's arguments with respect to claims 1-7 and 9-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should — you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

g.f.

E.G.

October 17, 2007

Attachment : one marked-up page of Aota et al., 6,474,898

Daniel P. Stodola

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Fig. 3

